TECHNICAL DATA SHEET

APL / TDS / 002 / Rev.09 | Date 18.07.2026

ALUCOPANEL® FR

EUROCLASS B - (s1,d0)

Physical Properties

	Test Standard	Tolerance	Result	
			4MM	6MM
Panel Thickness	...	(±) 0.2 mm	4.0 mm	6.0 mm
Weight of the Panel	...	± 0.5 kg/m²	8.2 kg/m²	11.7 kg/m²
Standard Width	...	(±) 2 mm	1000, 1250, 1500	
Length	...	(±) 2 mm	up to 6000 mm Max. 8000 mm	
Skin Thickness	...	(±) 0.02 mm	0.50 mm	

Fire Performance

	Test Standard	Requirement	Result / Certificate Ref. No.			
			4MM		6MM	
Reaction to Fire	EN 13501-1	Class B, s1, d0	TBW0300136			
Surface Burning Characteristics	ASTM E84	(FSI) 25-0 (SDI) 450-0	FSI 15, SDI 30 Class A		FSI 15, SDI 40 Class A	
Self Ignition Temperature (ACP)	ASTM D 1929	Not less than 343˚C	SIT (783˚F) 417˚C, FIT (779˚F) 415˚C		SIT (849˚F) 454˚C, FIT (846˚F) 452˚C	
Self Ignition Temperature (CORE)			SIT (777˚F) 414˚C, FIT (763˚F) 406˚C		SIT (777˚F) 414˚C, FIT (763˚F) 406˚C	
Exterior Non-Load Bearing Wall Cladding Assemblies	NFPA 285	As per standard	TBW	CAVITY (mm)	TBW	CAVITY (mm)
			TBW0300169	604	TBW0300118	693
Roof Covering Assembly (0-10° from the horizontal plane)	EN 13501-5	B_{ROOF}(t4)	TBW0300740 without any packing material on Alum structure with 300mm Void ideal for canopies and feature.		-	

Coil Specification (Top And Bottom Coil)

	Test Standard	Requirement	Result	
			4MM & 6MM	
Alloy / Temper	ASTM B209	...	3105 - H16	5005 - H16
Tensile Strength	ASTM E8	172 - 221 N/m²	196 N/mm²	188 N/mm²
Yield Strength	ASTM E8	Min. 145 N/m²	190 N/mm²	183 N/mm²
Elongation	ASTM E8	Min. 1.0 %	4.2 %	3.3 %
Modulus of Elasticity	ASTM E111	Measure Value	69 Gpa	

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Mechanical Properties

	Test Standard	Requirement	Result	
			4MM	6MM
Peel off Strength @ 180°	ASTM D903	10 kg/25mm	17.57 kg/25mm	15.6 kg/25mm
Climbing Drum Peel	ASTM D1781	Measure Value	17.3 kg/25mm	17.3 kg/25mm
Shear Strength	ASTM C 273	3.2MPa	3.25 Mpa	3.23 Mpa
Tensile Strength	ASTM E8	> 35MPa for 4mm >25MPa for 6mm	42.83 MPa	29.63 MPa
0.2% Proof Stress	ASTM E8	Measure Value	47.0 MPa	34.0 MPa
Punch Shear Test	ASTM D 732	20 MPa	22.29 MPa	21.93 MPa
Modulus of Elasticity	ASTM C393	Measure Value	19,600 Mpa	19,600 Mpa
Flexural Strength	ASTM D790-17	Measure Value	110.7 Mpa	110.7 Mpa

Thermal Properties

	Test Standard	Requirement	Result	
			4MM	6MM
Deflection Temperature	ASTM D 648	100˚C	250˚C	250˚C
Linear Thermal Expansion per 100˚C	ASTM D 696	2.4 mm/m/ ˚C	2.4 mm/m/ ˚C	2.6 mm/m/ ˚C
Thermal Conductivity	ASTM C 518	Measure Value	0.12 W/mK	0.23 W/mK

Coating Properties And Performance (Top Coat)

	Test Standard	Requirement	Result	
			4MM	6MM
Coating Thickness	ASTM D 1400	25µm	25µm	
Weathering Resistance	ASTM C 481	A. Shear Strength B. Film Adhesion C. Impact Resistance	A. 3.20 Mpa (after exposure) B.1.Dry Adhesion - No removal of film B.2. Wet Adhesion - No removal of film B.3. Boiling Water - No removal of film C. Impact Resistance - No removal of film	
Corrosion Resistance (Humidity Resistance & Salt Spray)	AAMA 2605 ASTM D 2247 ASTM D 714 ASTM B 117	A. Humidity Resistance (@4000 hours exposure) B. Salt Spray Resistance (@4000 hours, 35˚C)	A. No formation of blisters B.1 Scribed - rating of 9 B.2. Unscribed - rating of 10	
Chemical Resistance	ISO 2812 -1: 2014	A. Acid Resistance B. Alkali Resistance C. Oil Resistance D. Solvent Resistance	A. NO CHANGE B. NO CHANGE C. NO CHANGE D. NO CHANGE	
Abrasion Resistance	ASTM D 968	50 L/mil	52.7 L/ mil	
T-Bend Test	ASTM D 522	2T (No Cracks)	2T (No Cracks)	

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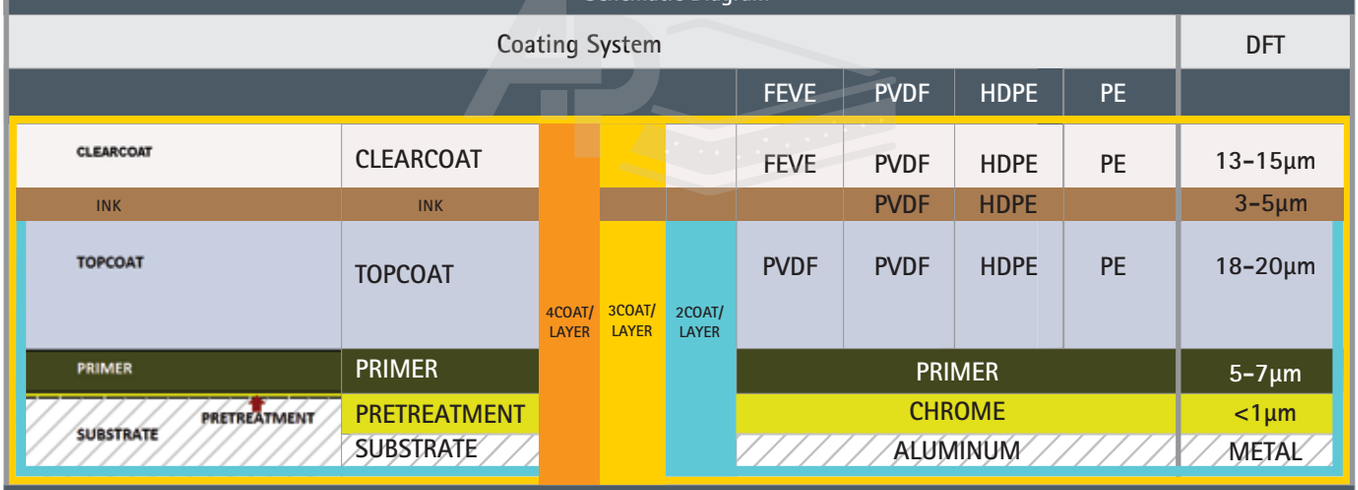
Coating Properties And Performance

	Test Standard	Requirement	Result	
			4MM	6MM
Pencil Hardness	ASTM D 3363	≥ H	≥ H	
Film adhesion DRY (@27 °C) WET (@38 °C, 24hrs) BOILING (@100 °C, 20hrs)	AAMA 2605 (Clause 7.4)	No removal of film	No removal of film within or outside of the cross- hatched area; No blistering was observed	
Impact Resistance Test 50 kg-cm	AAMA 2605 (Clause 7.5)	No removal of film	No removal of film	

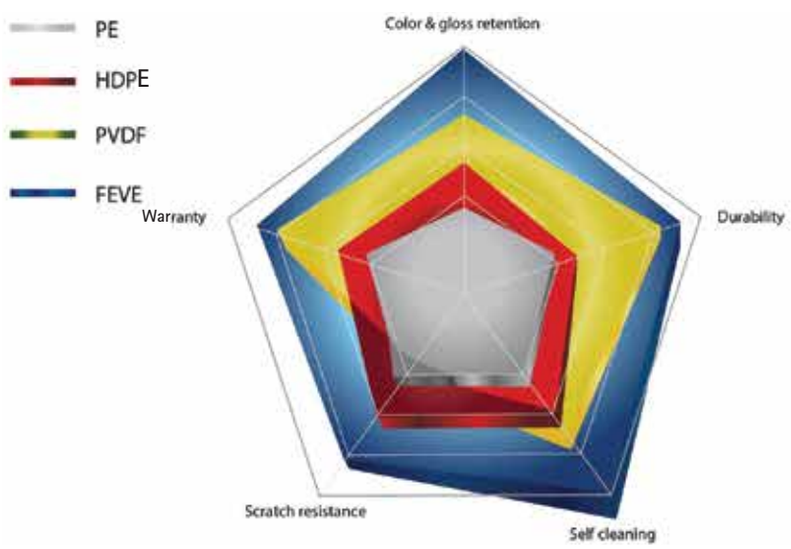
REMARK: Coating Performance results are complying with AAMA 2605-13 Requirements

Schematic Diagram



Coating Gloss Limitation & Comparison With Various Coatings

GLOSS RANGE (ASTM D 523) STANDARD @ 60°	
FEVE	60 - 90 GU
PVDF	15 - 40 GU
HDPE	15 - 90 GU
PE	20 - 90 GU



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Coating Properties And Performance (Bottom/Service Coat)			
	Test Standard	Requirement	Result
Dry Film Thickness	ASTM D 7091	5-7 µm	6 µm
Coating Flexibility T-bend Test	ASTM D 4145	2T	2T
Solvent Resistance Test	ASTM D 4752	Bearable @ 50X Rubbing	> 50 DR
Film Adhesion Test by Crosshatch	AAMA 2605; ASTM D3359-09e2	No Removal of Paint	PASSED
Film Adhesion Test by Boiling Water	AAMA 2605	No Removal of Paint	PASSED
Backside Printing Information & Direction		As per Material Description	PASSED
Coating type			Polyester

Important Note: Backside of the panels are pre-coated and may come in different colors to embellish the surface Appearance because the back of the cladding is not meant for display purposes.

REPORTS ARE BASED ON THE AVERAGE ANALYSIS RESULT

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